

XXIX.—*Descriptions of new Reptiles and Batrachians from Madagascar.* By G. A. BOULENGER.

Sepsina frontoparietalis.

Snout obtuse, scarcely projecting beyond the labial margin; eye moderate; lower eyelid scaly; ear-opening smaller than the eye-opening. Frontal divided into an anterior (frontal) and a posterior (frontoparietal) shield of equal length; the frontal proper in contact with the first and second supraoculars, the frontoparietal with the second, third, and fourth; frontal angularly emarginate on each side by the first supraocular; five supraoculars; nine supraciliaries; interparietal longer than broad, shorter than the frontoparietal; fourth upper labial entering the orbit. Twenty-eight scales round the middle of the body, equal. Limbs rather elongate, overlapping when adpressed. The fore limb, stretched forwards, reaches the anterior corner of the eye; hind limb rather more than half the length of the body. Tail twice as long as head and body. Brown above, each scale with the edges darker; nape and anterior part of back with interrupted dark brown cross bands; lower parts whitish.

	millim.
Total length.....	182
Head.....	13
Width of head.....	8
Body.....	49
Fore limb.....	16
Hind limb.....	26
Tail.....	120

A single specimen.

The division of the frontal shield, whether or not an individual character, is particularly interesting as showing that the large frontal of *Sepsina* and allied genera originated through fusion with the frontoparietal.

Chamæleon cucullatus, Gray.

This species has been known for nearly sixty years from a single female specimen. The collection which yielded the novelties described in this paper contained several specimens of both sexes, the females agreeing perfectly with the type preserved in the British Museum.

The male differs in the still more developed occipital lobe, the longer occipital process (the distance between the com-

missure of the mouth and the extremity of the casque exceeding the length of the mouth), the larger tubercles on the canthus rostralis, and the presence of two short, flattened, tuberculate, bony nasal processes, which are directed downwards and slightly outwards.

Total length 37 centimetres.

Rana flavicrus.

Vomerine teeth in two short transverse series just behind the level of the choanæ. Head moderate, as long as broad; snout subacuminate, truncate at the end, as long as the diameter of the orbit; nostril near the end of the snout; canthus rostralis angular; loreal region concave; interorbital space a little narrower than the upper eyelid; tympanum distinct, nearly as large as the eye. Fingers and toes slender, the tips dilated into small disks; first finger not extending quite so far as second; toes nearly entirely webbed; subarticular tubercles small; a small inner metatarsal tubercle. The tibio-tarsal articulation reaches beyond the end of the snout; tibia as long as the vertebral column. Skin smooth, belly and anal region granular; no dorso-lateral fold. Dark olive-grey above, with a few scattered minute white dots and a paler grey dorso-lateral band, bordered below by a blackish lateral band passing through the tympanum; lips pale grey, with black dots; groin with yellow marblings; limbs with black cross bars; lower surface of leg yellow, spotted and marbled with black; the remainder of the lower surfaces greyish, with indistinct brown mottling. Male with internal vocal sacs.

From snout to vent 55 millim.

A single male specimen.

Rana redimita.

Vomerine teeth in two small groups far behind the level of the choanæ. Head moderate; snout subacuminate; canthus rostralis angular; loreal region concave; the diameter of the orbit equals its distance from the nostril; interorbital space as broad as the upper eyelid; tympanum distinct, nearly two thirds the diameter of the eye. Fingers and toes moderate, the tips dilated into small disks; first and second fingers equal; toes half-webbed; subarticular tubercles moderate; a small inner metatarsal tubercle. The tibio-tarsal articulation reaches the eye; tibia three fourths the length of the vertebral column. Skin smooth, granular on the belly and

under the thighs ; no dorso-lateral fold. Dark brown above, with small lighter spots ; two whitish streaks from below the eye to the labial border ; limbs with black cross bands edged with whitish ; throat brown, closely spotted with black and with a black longitudinal streak on each side ; labial border black, with white dots ; belly and lower surface of limbs whitish, with numerous small black spots. Male with internal vocal sacs.

From snout to vent 47 millim.

A single male specimen.

Rana biporus.

Vomerine teeth in two small groups behind the level of the choanæ. Habit stout. Head short ; snout rounded, a little shorter than the diameter of the orbit ; nostril a little nearer the end of the snout than the eye ; canthus rostralis obtuse ; loreal region slightly concave ; interorbital space narrower than the upper eyelid ; tympanum distinct, two thirds or three fourths the diameter of the eye. Fingers moderate, first and second equal ; toes moderate, half-webbed ; tips of fingers and toes dilated into small disks ; subarticular tubercles small ; a small inner metatarsal tubercle. The tibio-tarsal articulation reaches the eye ; tibia two thirds the length of the vertebral column. Skin smooth ; no dorso-lateral fold ; a pair of circular flat glands, each with a median impression, under each thigh near its proximal extremity. Dark brown above, with or without a light vertebral line ; a more or less distinct, angular, black cross band between the eyes, light-edged anteriorly ; sides with white dots ; limbs with very indistinct black cross bars ; lower parts white, throat mottled or marbled with black. Male with internal vocal sacs.

From snout to vent 36 millim.

Several specimens.

The name given to this small species refers to the curious femoral glands, which are more developed in males than in females, and may prove homologous with the femoral pores of lizards. Such glands were first noticed in some Madagascar frogs (*Rana ulcerosa*, *guttulata*, *femoralis*) by Dr. Bœttger and myself ; these frogs, however, differ from *R. biporus* in having but a single gland on each side. A recent examination of the types of *Polypedates lugubris*, A. Dum., has convinced me of its identity with *Rana femoralis*, which must therefore bear the name *Rana lugubris*.

I also find that *Polypedates dispar*, Bttg., is identical with *P. tephraeomystax*, A. Dum., from Nossi Bé.

PLATYHYLA, g. n. (*Dyscophidarum*).

Pupil horizontal. Tongue large, oval, entire, and free behind. Palatine teeth* in two long, oblique, transverse series, converging posteriorly, separated by a narrow interspace. Tympanum hidden. Fingers and toes webbed at the base, the tips dilated into very large disks supported by a Y-shaped terminal phalanx. Outer metatarsals united. Coracoids strong; præcoracoids very slender, bent nearly at right angles, only the proximal half ossified; omosternum very small, cartilaginous; sternum a small cartilaginous plate. Diapophyses of sacral vertebra moderately dilated.

The following analysis shows the relations of this new genus to the other members of the family Dyscophidæ:—

- I. Pupil vertical; palatine teeth in long transverse series.
 - A. Præcoracoids ossified; tips of fingers and toes not dilated.
 - Sternum very large 1. *Dyscophus*, Grand.
 - Sternum small 2. *Calluella*, Stol.
 - B. Præcoracoids not ossified; tips of fingers and toes dilated 3. *Plethodontohyla*, Blgr.
- II. Pupil horizontal.
 - A. Palatine teeth in long transverse series.
 - 1. Præcoracoids ossified; tips of fingers and toes dilated.
 - Fingers and toes free; præcoracoids entirely ossified 4. *Mantipus*, Ptrs.
 - Fingers and toes webbed at the base; præcoracoids semio ossified 5. *Platyhyla*, Blgr.
 - 2. Præcoracoids not ossified; tips of fingers and toes not dilated 6. *Phrynocara*, Ptrs.
 - B. Palatine teeth in one or two small groups; præcoracoids ossified; tips of fingers and toes dilated.
 - Two small groups of teeth on the palate 7. *Platypelis*, Blgr.
 - A single small group of teeth in the middle of the palate 8. *Cophyla*, Bttg.

Platyhyla grandis.

Series of palatine teeth forming together an obtuse angle,

* The so-called vomerine teeth are inserted on the palatine bones in the Dyscophidæ.

extending to the vertical of the inner corner of the choanæ. Tongue very large, nearly covering the floor of the mouth. Head much depressed, broader than long; snout very short, rounded, with obtuse canthus rostralis; nostril halfway between the eye and the end of the snout; interorbital space a little broader than the upper eyelid. Fingers with very large truncate disks, that of the third finger rather larger than the eye; first finger shorter than second; a large, oval, compressed inner metacarpal tubercle. Toes one-third webbed, disks smaller than those of fingers; subarticular tubercles and inner metatarsal tubercle small and feebly prominent. The tibio-tarsal articulation reaches the ear. Skin smooth. Brown above, limbs with indistinct dark cross bands; brownish white inferiorly. Male with an internal vocal sac.

From snout to vent 83 millim.

Two specimens.

BIBLIOGRAPHICAL NOTICE.

The Larvæ of the British Butterflies and Moths. By (the late) WILLIAM BUCKLER. Edited by H. T. STAINTON, F.R.S. Vol. III. 8vo. Ray Society, London, 1889.

THE Ray Society's contribution to the literature of Natural History for the present year consists of the third volume of figures of the larvæ of British Lepidoptera prepared by the late Mr. William Buckler. The second volume, issued in 1887, included the Sphinxes and the first three families of the Bombycina; the present publication contains the illustrations of the remainder of the group.

As we have already called attention to the general character of the work, which must be of the highest interest to all lepidopterists, we need hardly do more than state that the beauty of the illustrations is fully maintained and that the eighteen plates contained in the new volume assist worthily towards the formation of a permanent monument of the unwearied industry of a naturalist whose labours unfortunately came to a close only too soon. In fact that inexorable tyrant, Death, seems to have determined to do all in his power to diminish Mr. Buckler's credit, for during the preparation of the volume now before us the Rev. John Hellins, who had contributed towards the completion of the manuscript and printed records of observations left by the departed artist, and whose descriptive notes added greatly to the value of the first two volumes, died rather unexpectedly, and the editor has been unable to find any one possessing the requisite knowledge who had also time at his disposal to undertake the task. Nevertheless the artist's own